

[SEQUENCE LISTING]

<110> SUNTORY LIMITED

SUNTORY BIOMEDICAL RESEARCH LIMITED

<120> THERAPEUTIC METHODS AND AGENTS FOR DISEASES ASSOCIATED WITH
DECREASED EXPRESSION OF AOP-1 GENE OR AOP-1

<130> YCT-687

<160> 30

<210> 1

<211> 1542

<212> mRNA

<213> Homo sapiens

<400> 1

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<210> 2

〈211〉 1433

<212> mRNA

〈213〉 *Rattus norvegicus*

<400> 2

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<210> 3

<211> 1382

<212> mRNA

<213> mouse

<400> 3

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tcaacacacc aagaaagaat ggtggtttgg gccacatgaa catcacactg ttgtcggata 540
taactaagca gatatcccga gactacggag tgctgttgaa aagtgcgtggc attgcactca 600
gaggtctt cattattgac cctaatggtg tcgtcaagca cctgagtgic aacgacccctt 660
cggtggcccg cagtgtggaa gaaacactcc gtttggtaaa ggcgttccag ttgttagaga 720

cccatggaga agtctgcccc gccaacigga caccagagtc ccctacgatc aagccaagtc 780
caacagcttc caaagagttac tttagagaagg tccatcgta ggccatccta tgtctgcaat 840
tacctgaagc tttagggcc aaaaaagagc cccagctgga atccttccaa tgcttgaag 900
attatttata gaatggcaaa acctcattat gtttgtgtt ataagtactg ctccacagggc 960
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〈210〉 4

<211> 256

〈212〉 PRT

〈213〉 *Homo sapiens*

<400> 4

Met Ala Ala Ala Val Gly Arg Leu Leu Arg Ala Ser Val Ala Arg His

5 10 15

Val Ser Ala Ile Pro Trp Gly Ile Ser Ala Thr Ala Ala Leu Arg Pro

20 25 30

Ala Ala Cys Gly Arg Thr Ser Leu Thr Asn Leu Leu Cys Ser Gly Ser

35 40 45

Ser Gln Ala Lys Leu Phe Ser Thr Ser Ser Ser Cys His Ala Pro Ala

50 55 60

Val Thr Gln His Ala Pro Tyr Phe Lys Gly Thr Ala Val Val Asn Gly

65 70 75 80

Glu Phe Lys Asp Leu Ser Leu Asp Asp Phe Lys Gly Lys Tyr Leu Val

85	90	95
Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu Ile		
100	105	110
Val Ala Phe Ser Asp Lys Ala Asn Glu Phe His Asp Val Asn Cys Glu		
115	120	125
Val Val Ala Val Ser Val Asp Ser His Phe Ser His Leu Ala Trp Ile		
130	135	140
Asn Thr Pro Arg Lys Asn Gly Gly Leu Gly His Met Asn Ile Ala Leu		
145	150	155
Leu Ser Asp Leu Thr Lys Gln Ile Ser Arg Asp Tyr Gly Val Leu Leu		
165	170	175
Glu Gly Ser Gly Leu Ala Leu Arg Gly Leu Phe Ile Ile Asp Pro Asn		
180	185	190
Gly Val Ile Lys His Leu Ser Val Asn Asp Leu Pro Val Gly Arg Ser		
195	200	205
Val Glu Glu Thr Leu Arg Leu Val Lys Ala Phe Gln Tyr Val Glu Thr		
210	215	220
His Gly Glu Val Cys Pro Ala Asn Trp Thr Pro Asp Ser Pro Thr Ile		
225	230	235
Lys Pro Ser Pro Ala Ala Ser Lys Glu Tyr Phe Gln Lys Val Asn Gln		
245	250	255

<210> 5

<211> 257

<212> PRT

<213> Rattus norvegicus

<400> 5

Met Ala Ala Ala Ala Gly Arg Leu Leu Trp Ser Ser Val Ala Arg Pro

5

10

15

Ala Ser Thr Ile Phe Arg Ser Ile Ser Ala Ser Thr Val Leu Arg Pro
 20 25 30
 Val Ala Ser Arg Arg Thr Cys Leu Thr Asp Met Leu Trp Ser Ala Cys
 35 40 45
 Pro Gln Ala Lys Phe Ala Phe Ser Thr Ser Ser Phe His Thr Pro
 50 55 60
 Ala Val Thr Gln His Ala Pro His Phe Lys Gly Thr Ala Val Val Asn
 65 70 75 80
 Gly Glu Phe Lys Glu Leu Ser Leu Asp Asp Phe Lys Gly Lys Tyr Leu
 85 90 95
 Val Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu
 100 105 110
 Ile Val Ala Phe Ser Asp Lys Ala Asn Glu Phe His Asp Val Asn Cys
 115 120 125
 Glu Val Val Ala Val Ser Val Asp Ser His Phe Ser His Leu Ala Trp
 130 135 140
 Ile Asn Thr Pro Arg Lys Asn Gly Gly Leu Gly His Met Asn Ile Thr
 145 150 155 160
 Leu Leu Ser Asp Leu Thr Lys Gln Ile Ser Arg Asp Tyr Gly Val Leu
 165 170 175
 Leu Glu Ser Ala Gly Ile Ala Leu Arg Gly Leu Phe Ile Ile Asp Pro
 180 185 190
 Asn Gly Val Ile Lys His Leu Ser Val Asn Asp Leu Pro Val Gly Arg
 195 200 205
 Ser Val Glu Glu Pro Leu Arg Leu Val Lys Ala Phe Gln Phe Val Glu
 210 215 220
 Thr His Gly Glu Val Cys Pro Pro Asn Trp Thr Pro Glu Ser Pro Thr
 225 230 235 240
 Ile Lys Pro Ser Pro Thr Ala Ser Lys Glu Tyr Phe Glu Lys Val His

245

250

255

Gln

<210> 6

<211> 257

<212> PRT

<213> mouse

<400> 6

Met Ala Ala Ala Ala Gly Arg Leu Leu Trp Ser Ser Val Ala Arg His			
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Ala Ser Ala Ile Ser Arg Ser Ile Ser Ala Ser Thr Val Leu Arg Pro			
20	25	30	
Val Ala Ser Arg Arg Thr Cys Leu Thr Asp Ile Leu Trp Ser Ala Ser			
35	40	45	
Ala Gln Gly Lys Ser Ala Phe Ser Thr Ser Ser Phe His Thr Pro			
50	55	60	
Ala Val Thr Gln His Ala Pro Tyr Phe Lys Gly Thr Ala Val Val Asn			
65	70	75	80
Gly Glu Phe Lys Glu Leu Ser Leu Asp Asp Phe Lys Gly Lys Tyr Leu			
85	90	95	
Val Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu			
100	105	110	
Ile Val Ala Phe Ser Asp Lys Ala Asn Glu Phe His Asp Val Asn Cys			
115	120	125	
Glu Val Val Ala Val Ser Val Asp Ser His Phe Ser His Leu Ala Trp			
130	135	140	
Ile Asn Thr Pro Arg Lys Asn Gly Gly Leu Gly His Met Asn Ile Thr			
145	150	155	160
Leu Leu Ser Asp Ile Thr Lys Gln Ile Ser Arg Asp Tyr Gly Val Leu			

165 170 175
Leu Glu Ser Ala Gly Ile Ala Leu Arg Gly Leu Phe Ile Ile Asp Pro
180 185 190
Asn Gly Val Val Lys His Leu Ser Val Asn Asp Leu Pro Val Gly Arg
195 200 205
Ser Val Glu Glu Thr Leu Arg Leu Val Lys Ala Phe Gln Phe Val Glu
210 215 220
Thr His Gly Glu Val Cys Pro Ala Asn Trp Thr Pro Glu Ser Pro Thr
225 230 235 240
Ile Lys Pro Ser Pro Thr Ala Ser Lys Glu Tyr Phe Glu Lys Val His
245 250 255
Gln

<210> 7

<211> 21

<212> DNA

<213> Artificial Sequence

<400> 7

tgcagtttca gtggattccc a

<210> 8

<211> 18

<212> DNA

<213> Artificial Sequence

<400> 8

ttcatgtggc ccaaacca

<210> 9

<211> 28

<212> DNA
<213> Artificial Sequence
<400> 9
tcttgccctgg atcaacacac caagaaag

<210> 10
<211> 22
<212> DNA
<213> Artificial Sequence
<400> 10
ccctctgctt gctgatgtga ct

<210> 11
<211> 20
<212> DNA
<213> Artificial Sequence
<400> 11
cctgttaaggcg atgccctcat

<210> 12
<211> 29
<212> DNA
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<400> 12
agcttgcctcc agaattacgg cgttgtaa

<210> 13
<211> 19
<212> DNA

<213> Artificial Sequence

<400> 13

gcggatgaag agaggcatg

<210> 14

<211> 18

<212> DNA

<213> Artificial Sequence

<400> 14

gccacacccgt ccitttcca

<210> 15

<211> 23

<212> DNA

<213> Artificial Sequence

<400> 15

tggagacctg ggcaatgtgg ctg

<210> 16

<211> 17

<212> DNA

<213> Artificial Sequence

<400> 16

acgggtgcic agcciccc

<210> 17

<211> 18

<212> DNA

<213> Artificial Sequence

<400> 17
aggcttgcgc cctgcitc

<210> 18
<211> 25
<212> DNA
<213> Artificial Sequence
<400> 18
cagcctgcac tgaggagatc cctca

<210> 19
<211> 28
<212> DNA
<213> Artificial Sequence
<400> 19
aaccgcggtc gtggctttg cgttctct

<210> 20
<211> 30
<212> DNA
<213> Artificial Sequence
<400> 20
gcgcttagctt attgatggac ctctcaaag

<210> 21
<211> 20
<212> DNA
<213> Artificial Sequence
<400> 21

ttacagattg ccgcctgctc

<210> 22

<211> 20

<212> DNA

<213> Artificial Sequence

<400> 22

ccagcagtgg aataaggcct

<210> 23

<211> 25

<212> DNA

<213> Artificial Sequence

<400> 23

aatcacgacc cactgcaagg aacca

<210> 24

<211> 19

<212> DNA

<213> Artificial Sequence

<400> 24

tgcaccacca actgcattag

<210> 25

<211> 19

<212> DNA

<213> Artificial Sequence

<400> 25

ggatgcaggg atgaatgttc

<210> 26
<211> 23
<212> DNA
<213> Artificial Sequence
<400> 26
cagaagactg tggatggccc ctgc

<210> 27
<211> 877
<212> mRNA
<213> Rattus norvegicus
<400> 27

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accctaattgt gatgacagca aggaatactt ctccaaacac aactgagatg ggtaaacatc 660
ggtgagccgt aatcccgat ctacccgtcg cccttacccgt gatgtccgttgc tggcccaag 720
aaaacgcgttgc atcttccctt acattctaaa gggcttggag gctaggccga ggctttctca 780
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gtctatagga aaccaataaaa gtatgttggaa cagtgtta 877

<210> 28
 <211> 198
 <212> PRT
 <213> Rattus norvegicus
 <400> 28

Met Ala Ser Gly Asn Ala His Ile Gly Lys Pro Ala Pro Asp Phe Thr			
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Gly Thr Ala Val Val Asp Gly Ala Phe Lys Glu Ile Lys Leu Ser Asp			
20	25	30	
Tyr Arg Gly Lys Tyr Val Val Leu Phe Phe Tyr Pro Leu Asp Phe Thr			
35	40	45	
Phe Val Cys Pro Thr Glu Ile Ile Ala Phe Ser Asp His Ala Glu Asp			
50	55	60	
Phe Arg Lys Leu Gly Cys Glu Val Leu Gly Val Ser Val Asp Ser Gln			
65	70	75	80
Phe Thr His Leu Ala Trp Ile Asn Thr Pro Arg Lys Glu Gly Gly Leu			
85	90	95	
Gly Pro Leu Asn Ile Pro Leu Leu Ala Asp Val Thr Lys Ser Leu Ser			
100	105	110	
Gln Asn Tyr Gly Val Leu Lys Asn Asp Glu Gly Ile Ala Tyr Arg Gly			
115	120	125	
Leu Phe Ile Ile Asp Ala Lys Gly Val Leu Arg Gln Ile Thr Val Asn			
130	135	140	
Asp Leu Pro Val Gly Arg Ser Val Asp Glu Ala Leu Arg Leu Val Gln			
145	150	155	160
Ala Phe Gln Tyr Thr Asp Glu His Gly Glu Val Cys Pro Ala Gly Trp			
165	170	175	
Lys Pro Gly Ser Asp Thr Ile Lys Pro Asn Val Asp Asp Ser Lys Glu			
180	185	190	

Tyr Phe Ser Lys His Asn

195

<210> 29

<211> 560

<212> mRNA

<213> Homo sapiens

<400> 29

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gcaggcccttc actttaatcc tctatccaga aaacacggtg ggccaaagga tgaagagagg 240
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gaagattctg tgatctact ctctaggagac cattgcatca ttggccgcac actggggtc 360
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gcgttggaaatc gtttggcttg tgggtgtatt gggatcgccc aataaacatt cccttggatg 480
tagtctgagg ccccttaact catctgttat cctgctagct gttagaaatgt atccctgataa 540
acattaaaca ctgtaatctt 560

<210> 30

<211> 154

<212> PRT

<213> Homo sapiens

<400> 30

Met Ala Thr Lys Ala Val Cys Val Leu Lys Gly Asp Gly Pro Val Gln

5

10

15

Gly Ile Ile Asn Phe Glu Gln Lys Glu Ser Asn Gly Pro Val Lys Val

20

25

30

Trp Gly Ser Ile Lys Gly Leu Thr Glu Gly Leu His Gly Phe His Val

35 40 45
His Glu Phe Gly Asp Asn Thr Ala Gly Cys Thr Ser Ala Gly Pro His
50 55 60
Phe Asn Pro Leu Ser Arg Lys His Gly Gly Pro Lys Asp Glu Glu Arg
65 70 75 80
His Val Gly Asp Leu Gly Asn Val Thr Ala Asp Lys Asp Gly Val Ala
85 90 95
Asp Val Ser Ile Glu Asp Ser Val Ile Ser Leu Ser Gly Asp His Cys
100 105 110
Ile Ile Gly Arg Thr Leu Val Val His Glu Lys Ala Asp Asp Leu Gly
115 120 125
Lys Gly Gly Asn Glu Glu Ser Thr Lys Thr Gly Asn Ala Gly Ser Arg
130 135 140
Leu Ala Cys Gly Val Ile Gly Ile Ala Gln
145 150